

ABSTRACT

Composite concrete pavement includes the surface course of normal concrete and subbase and/or lower layer of concrete with coarse aggregate defined as enriched limestone waste of grading intermediate between the coarse and fine aggregates. Specified compressive strength and modulus of rupture of this concrete amount up to 5,000 and 750psi, respectively.

Coarse aggregate of this concrete is enriched by-product of manufacture of crushed limestone of regular sizes. As a raw material for enrichment it should be coarser than 9.5mm and finer than 4.75mm. The amount of aggregate finer than 4.75mm as a part of the total weight of aggregate should be not less than 1/3 before enrichment and close to but not exceed 2/3 in aggregate bin.

The use of this very cheap and efficient concrete for composite concrete pavement allows reduction of initial cost of construction of this pavement and makes it more competitive as compared with asphalt pavement.